209, B-16 Hostel
IIT Mandi - 175005
Himachal Pradesh, India

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Education

Himachal Pradesh, India **Indian Institute of Technology, Mandi** **Aug 2015 – Present**

- **Bachelor of Technology in Computer Science and Engineering, CGPA: 7.41/10.0**
- **Relevant Coursework:** Data Structures and Algorithms, Networking and Operating Systems, System Architecture, Pattern Recognition, Artificial Intelligence, Paradigms of Programming, Algorithm Design and Analysis, Probability, Economics.
- **Teaching Assistant** for the courses Introduction to Programming, Data Structures and Algorithms, Networking and OS
- **Volunteer Work** in National Services Scheme-IIT Mandi, Inter IIT Tech Meet and Exodia-College's fest

Experience

Google Summer of Code, Developer **GNU Octave** **April 2018 – August 2018**

- Implemented API for publishing an Octave script and any figures generated through it using the user's credentials to Octave's website.
- Wrote script for editing and uploading content using MediaWiki API, transferring the data as simple HTTP GET and POST requests and storing credentials in the form of persistent HTTP cookies using LibCurl.
- Implemented MATLAB compatible RESTful Services for the software which included three functions, used for performing read, write operations on any web service.

Software Engineering Intern **PocketPills Inc., Gurgaon** **June 2018 – August 2018**

- Implemented an **Open Source** Canadian Phone number format textWatcher class for Android.
- Wrote **non-blocking** CRUD operations using Java Ebean ORM between DAL and database.
- Implemented AWS Simple Email Service Client using Google **Guice Dependency Injection** framework.
- Accomplished **100%** code coverage using **Mockito** and Junit Frameworks.
- Connected Google **DialogFlow** NLP bot with Facebook Messenger and sent specific queries to application's back end which couldn't be answered by the bot.

Projects

- **Peer-to-peer file sharing application(In Progress)**: Design and implement a file sharing application to enable easy file sharing among the college intranet with the use of network coding and peer-to-peer protocol
- **Optimal Wi-Fi Connector**: Improved the client side of a server-client based application in python that could suggest the best possible connectivity to Wi-Fi devices in a large institution like a college, keeping network load uniform on all devices.
- **Preventing DoS attacks on Postgres API**: Tweaked the PostGres API to record the expensive queries run by the database scheduler and reject them if the same queries get repeated.
- **School Database Management System**: Built a PHP-MySQL powered school management portal which aimed at helping the school administration and teachers communicate with students' parents and vice versa with school reports, timetable, etc.
- **Image Classification and Reconstruction**: Analyzed various machine learning based algorithms such as K-Means and K-Nearest Neighbors, etc. to classify three sets of images. Reconstructed B&W plant cell images using parameters obtained as a Gaussian Mixture Model.
- **Automatic Junk Dealer**: Designed a prototype which took garbage material as input and processed them using arduino based sensors to put into different bins based on its type, i.e, plastic, landfill or metal. Configured GSM Module to transfer compensation to the user based on the weight and type of the input.

Languages and Technologies

- **Languages:** C, C++, Java, Python, JavaScript, MySQL, PHP, HTML, CSS
- **Frameworks:** Play MVC, Guice DI, Mockito, GNU Autotools, Google DialogFlow
- **Tools and IDE:** Git, Mercurial, GNU Octave, MATLAB, LaTeX, Linux, IntelliJ IDEA